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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/865,484	05/29/2001	Johannes Steffens	4100-0126P	3500
2292	7590	11/14/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			WARE, CICELY Q	
			ART UNIT	PAPER NUMBER
			2634	

DATE MAILED: 11/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/865,484

Applicant(s)

STEFFENS ET AL.

Examiner

Cicely Ware

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 3-7 is/are allowed.
- 6) ☒ Claim(s) 8, 9, 10, 11 is/are rejected.
- 7) ☐ Claim(s) 12-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETATILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
2. Claim 11 recites the limitation
 - a. “for each demodulation method”, in line 2. There is insufficient antecedent basis for this limitation in the claim. Due to fact that the independent claim 10, only recites a first demodulation method.

Claim Objections

3. Claim 12 is objected to because of the following informalities:
 - a. Claim 12, recites “wherein the filtering is carried out so that the one demodulation method is converted into another demodulation method”. Examiner suggests applicant use “so that the first demodulation method is converted into another demodulation method” for clarification purposes.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2634

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Lundqvist et al. (US Patent 5,640,679).

(1) With regard to claim 8, Lundqvist et al. discloses a process for synchronizing an input signal including the following process steps: demodulating the input signal according to a first demodulation method in relation to a first signal parameter for creating a first demodulated input signal; and correlating the first demodulated input signal with a first comparison signal that depends upon the first demodulation method to determine a time offset between the first demodulated input signal and the first comparison signal; and time-wise shifting the input signal in accordance with the time-wise offset determined by the correlation (col. 4, lines 66-67, col. 5, lines 1-15, 19-29), wherein the first comparison signal is obtained by subjecting a synchronization sequence to the first demodulation method (col. 2, lines 66-67- col. 3, line 1, col. 4, lines 67 - col. 5, lines 1-5)).

Lundqvist et al. discloses wherein synchronization comes from the mobile station and sent with the demodulator through a correlator. Therefore the synchronization at the mobile station is subjected to demodulation and correlation (comparison).

(2) With regard to claim 9, see rejection of claim 8. Lundqvist et al. further discloses wherein the input signal is subjected to an analog/digital conversion at one of before and after demodulation (col. 1, lines 35-42, col. 2, lines 21-26).

Lundqvist does not explicitly disclose an analog/digital conversion. However Lundqvist discloses transmitting a speech signal. It is well known in the art that a

speech signal is an analog signal, which is transmitted across a digital channel.

Therefore an analog/digital converter is inherently used.

Therefore claim 9 does not constitute patentability.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lundqvist et al. (US Patent 5,640,679) as applied to claim 9.

With regard to claim 10, claim 10 inherits all the limitations of claim 9. However Lundqvist et al. does not disclose wherein a filtering takes place at one of before and after the analog/digital conversion.

However it is well known in the art that a filter can be placed anywhere in a system for cleaning up a signal. It doesn't matter whether it's placed either before or after a particular process.

Therefore claim 10 does not constitute patentability.

Allowable Subject Matter

8. Claims 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a process for synchronizing an input signal. Prior art references show similar methods but fail to teach: **“wherein each result of the correlation is subjected to a first interpolation between sampling points”**, as in claim 13; **“wherein a first interpolation method used in the first interpolation depends upon one of: an associated demodulation method, the first comparison signal, or the filtering”**, as in claim 14; **“wherein the time offset of the input signal is subjected to a second interpolation between sampling points”**, as in claim 15.

9. Claims 1, 3-7 are allowed.

10. The following is a statement of reasons for the indication of allowable subject matter: The instant application discloses a process for synchronizing an input signal. Prior art references show similar methods but fail to teach: **“demodulating the input signal (S) according to a second demodulation method in relation to a second signal parameter for creating a second demodulated input signal and correlating the second demodulated input signal with a second comparison signal that depends upon the second demodulation method for determining a time offset between the second demodulated input signal and the second comparison signal”**, as in claim 1; **“the input signal (S) is demodulated according to n different demodulating methods in relation to n different demodulated input signals; and each demodulated input signal is correlated with an associated comparison signal dependent on the associated demodulation method to determine a time**

Art Unit: 2634

offset between each demodulated input signal and the associated comparison signal", as in claim 4.

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cicely Ware whose telephone number is 571-272-3047. The examiner can normally be reached on Monday – Friday, 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571-272-3056. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Cicely Ware

cqw
October 31, 2005


STEPHEN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600